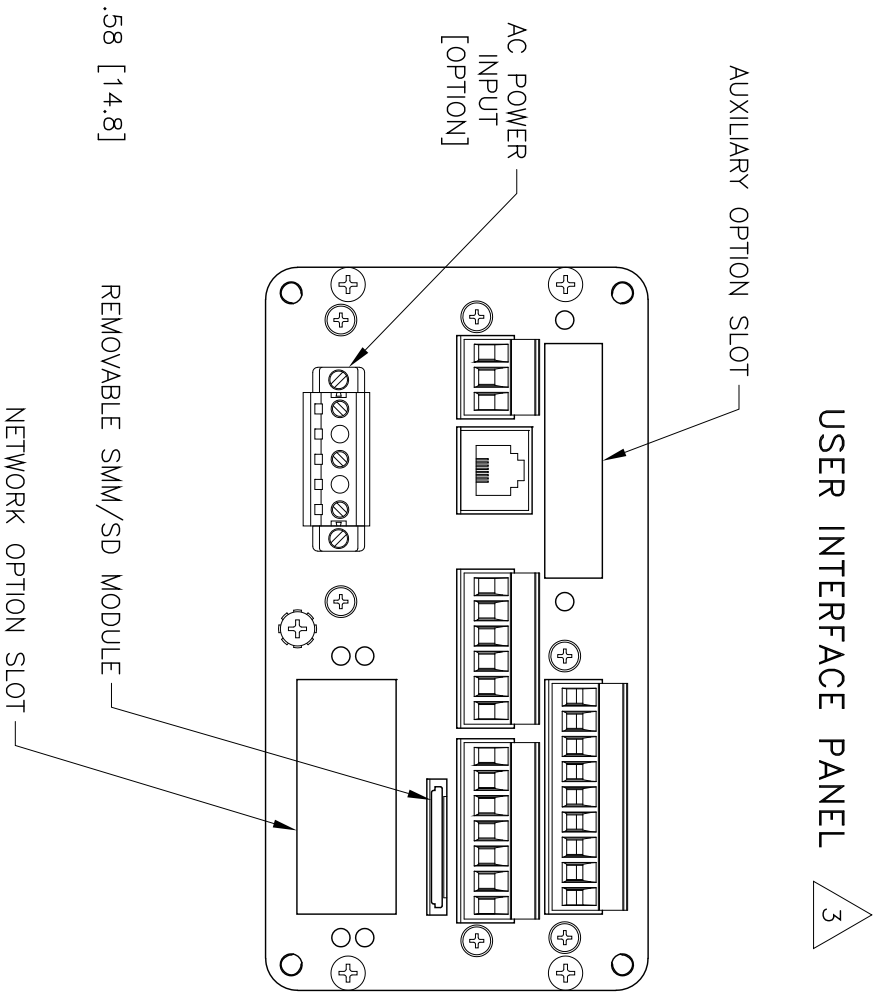
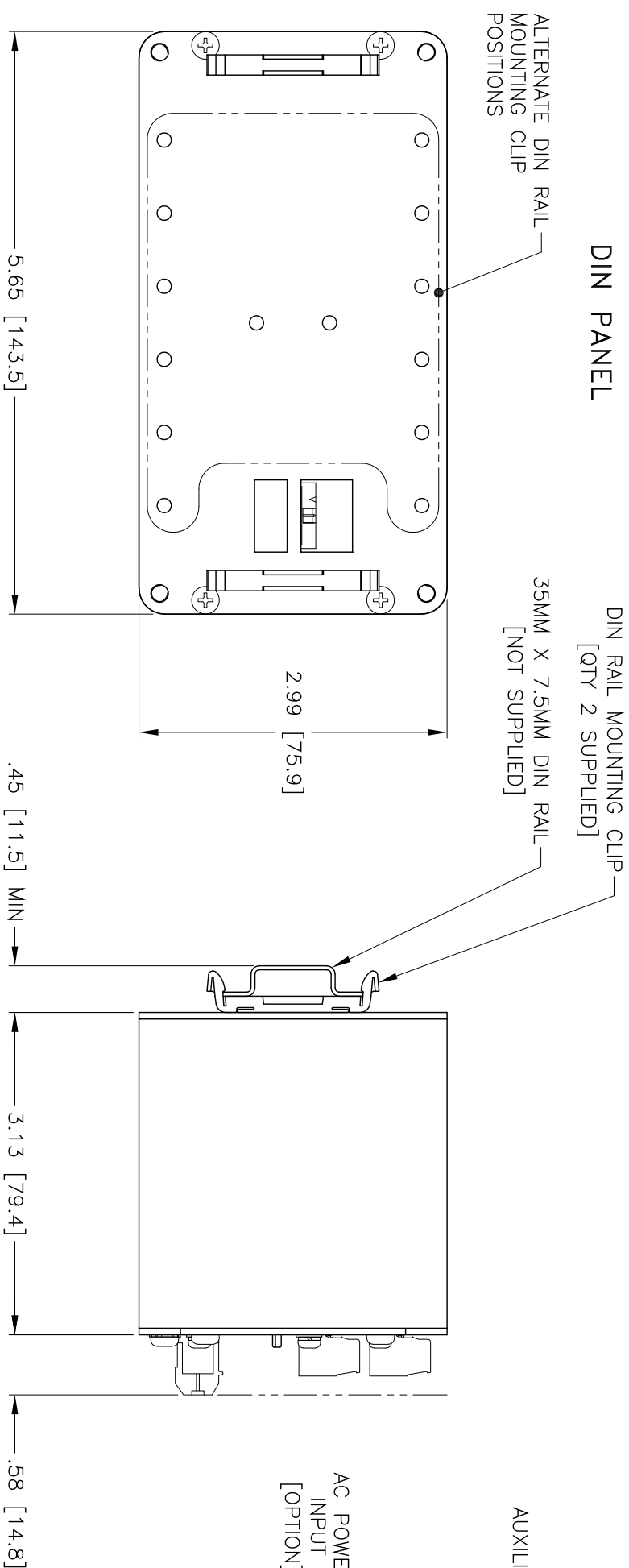


HI 4050 WEIGHT CONTROLLER CONTROLLER MAIN UNIT

REV.	ECO/D/C	DESCRIPTION	DATE	DRAWN	CHECK	APP'D
A	----	RELEASED FOR PUBLICATION.	02-26-09	V.J.C.	D.H.	V.J.C.
B	10752	REVISED PER EGN.	11-09-09	V.J.C.	D.H.	V.J.C.
C	11139	REVISED PER EGN.	08-23-13	V.J.C.	L.E.G.	V.J.C.
D	11688	REVISED PER EGN.	04-27-15	V.J.C.	L.E.G.	V.J.C.
E	11787	REVISED PER EGN.	01-11-16	V.J.C.	E.B.	V.J.C.
E2	----	ADDED PROFNET COMMUNICATIONS NETWORK OPTION "PFN".	02-10-21	V.J.C.	J.I.	V.J.C.
E3	----	DELETED ALLEN-BRADLEY NETWORK OPTION "RIO".	07-26-22	V.J.C.	J.I.	V.J.C.



- SEE SHEET 5 FOR WALL MOUNT ENCLOSURE INTERNAL COMPONENTS.
- EXERCISE CAUTION WHEN ADDING OR ENLARGING HOLES IN WALL MOUNT ENCLOSURE. METAL PARTICLES COULD SERIOUSLY DAMAGE ELECTRONICS. COVER ELECTRONICS BEFORE DRILLING OR PUNCHING. WALL MOUNT ENCLOSURE DOOR TO REMAIN FREE OF HOLES.
- SEE SHEET 4 FOR WALL MOUNT ENCLOSURE WITH DISPLAY DIMENSIONS.
- SEE SHEET 3 FOR WALL MOUNT ENCLOSURE WITHOUT DISPLAY DIMENSIONS.

3 GENERIC USER INTERFACE PANEL SHOWN ONLY. SEE SHEETS 6 THROUGH 9 FOR USER INTERFACE PANEL CONNECTIONS.

2. SEE SHEET 2 FOR FRONT PANEL DISPLAY DIMENSIONS.

1. SEE CD RESOURCE GUIDE FOR ADDITIONAL MOUNTING AND WIRING INFORMATION.

NOTES: UNLESS OTHERWISE SPECIFIED

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DIMENSIONS = IN [MM]

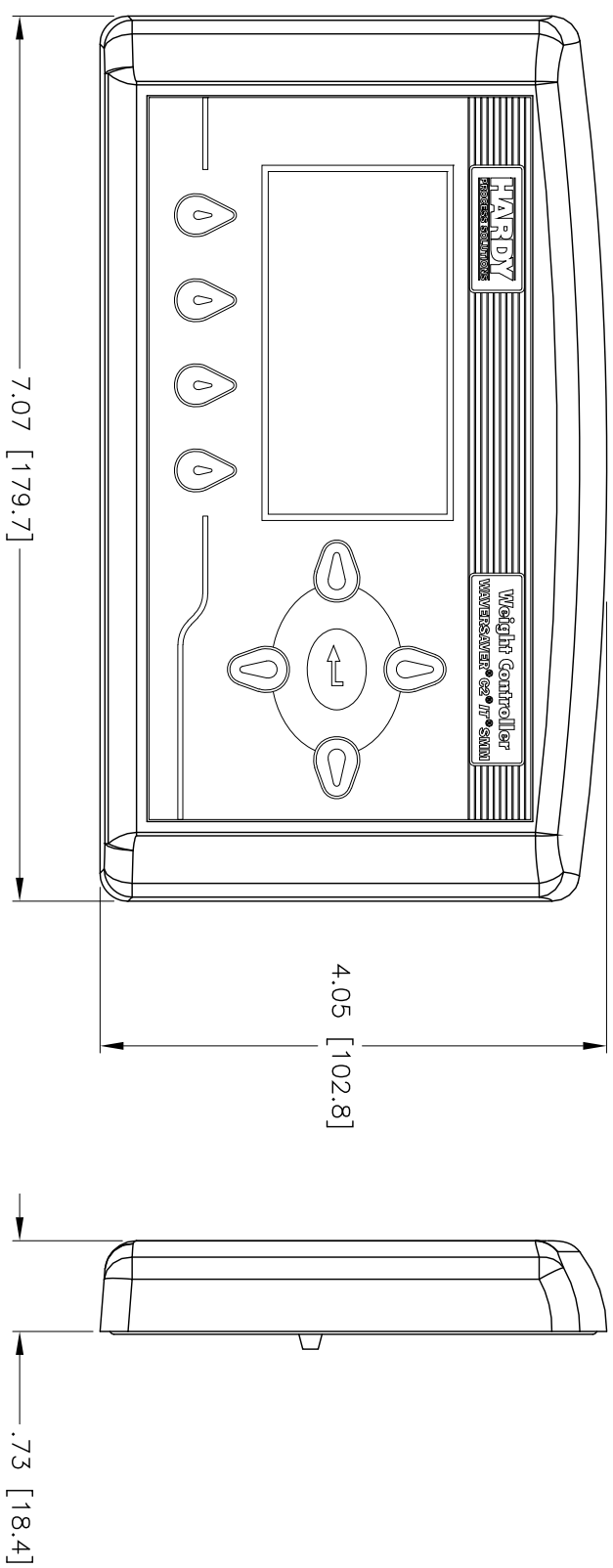
ITEM	QTY	PART NUMBER	DESCRIPTION	COMMENTS
		0584-0064	I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [MM]		CONTRACT NO.	
TOLERANCES ARE: DECIMALS: .XX = N/A .XXX = N/A ANGLES: N/A	APPROVALS	DATE	DATE
DRAWN V. CHULA		02-26-09	
CHECKED D. HOLT		02-26-09	
APPROVED V. CHULA		02-26-09	
ISSUED V. CHULA		02-26-09	
PRODUCTION			

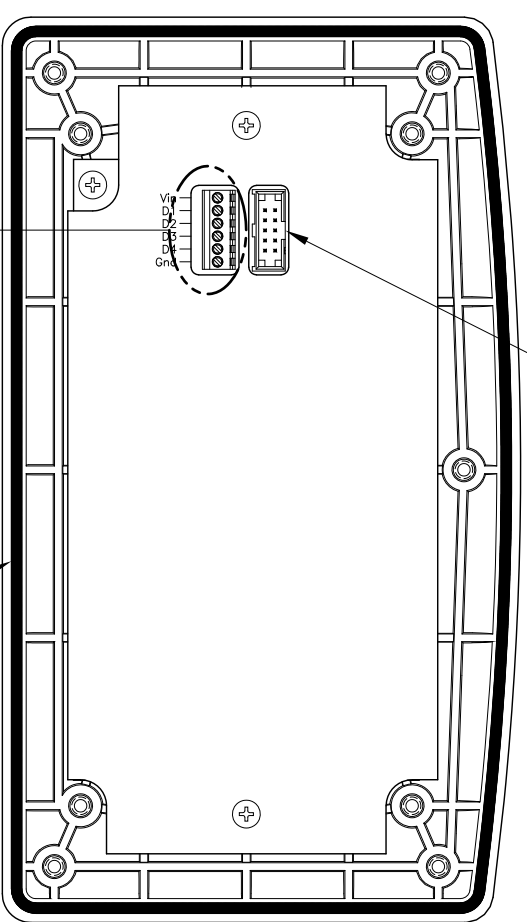
FILE NAME:	SCALE:	SHEET	REV.
584064E3.DWG	NONE	1 OF 10	E

HI 4050 WEIGHT CONTROLLER FRONT PANEL DISPLAY

FRONT



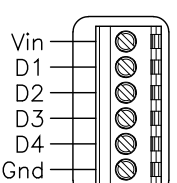
PANEL MOUNT RIBBON CABLE
INTERFACE CONNECTOR



REAR

FRONT PANEL SEALING GASKET

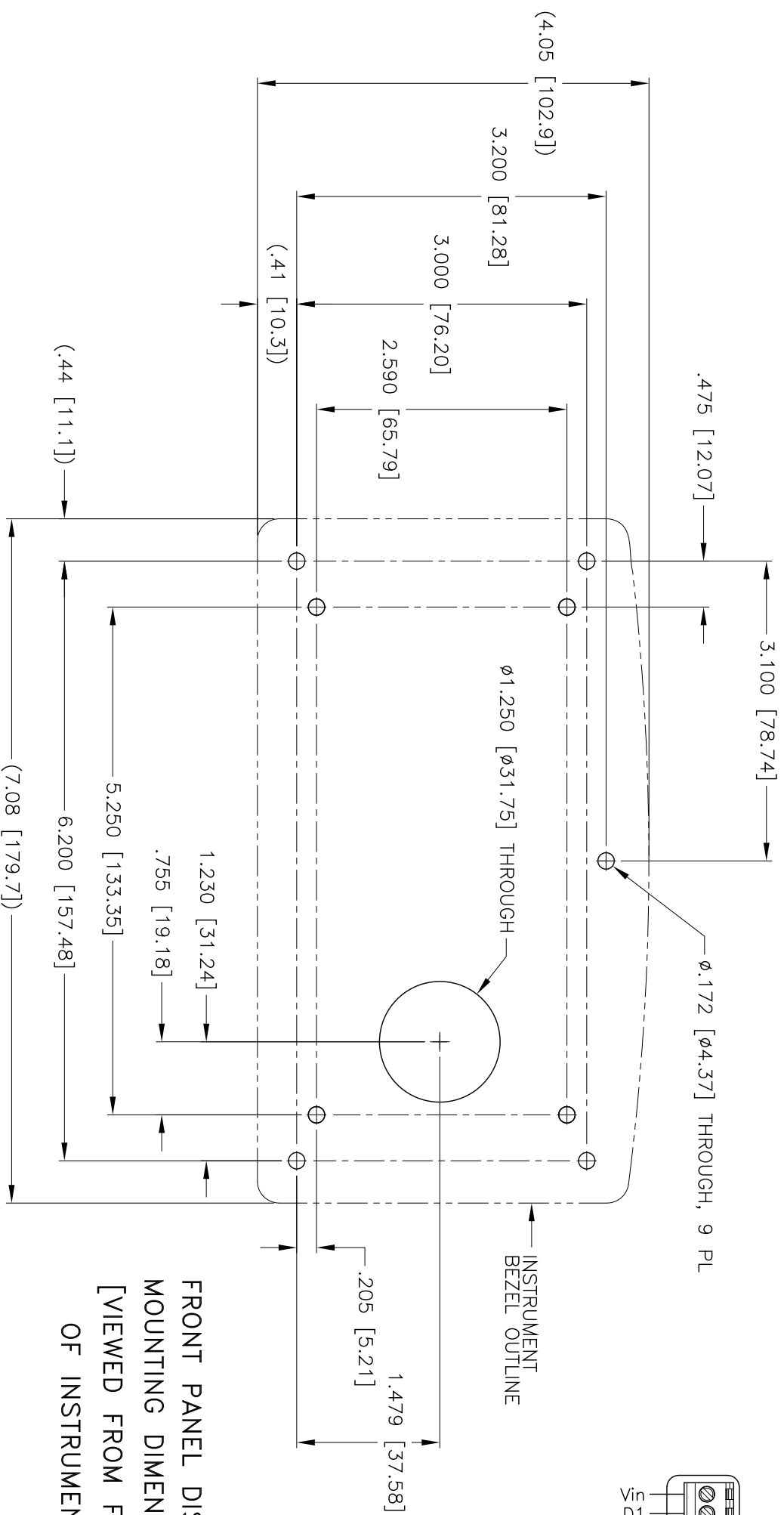
FRONT PANEL DISPLAY TERMINAL BLOCK



NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON REMOTE DISPLAY TERMINATIONS.
2. WIRE SIZE: 20 AWG MAXIMUM / 26 AWG MINIMUM. WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.
3. MAXIMUM CABLE LENGTH: 100 FEET [30.48 METERS]
4. SEE SHEET 6 FOR REMOTE DISPLAY WIRE TERMINATIONS TO THE HI 4050 WEIGHT CONTROLLER MAIN UNIT.

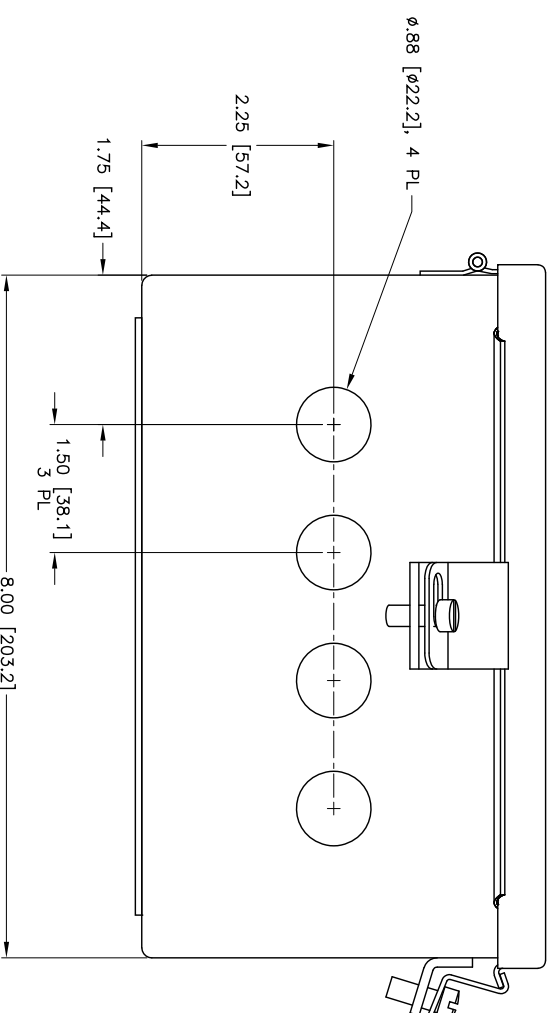
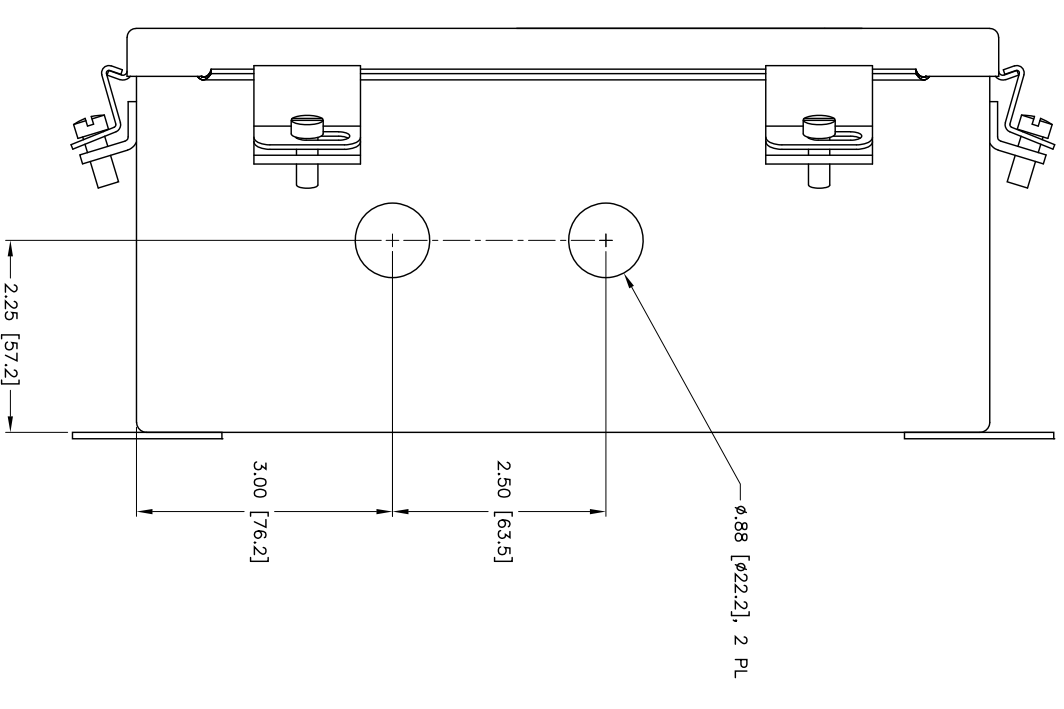
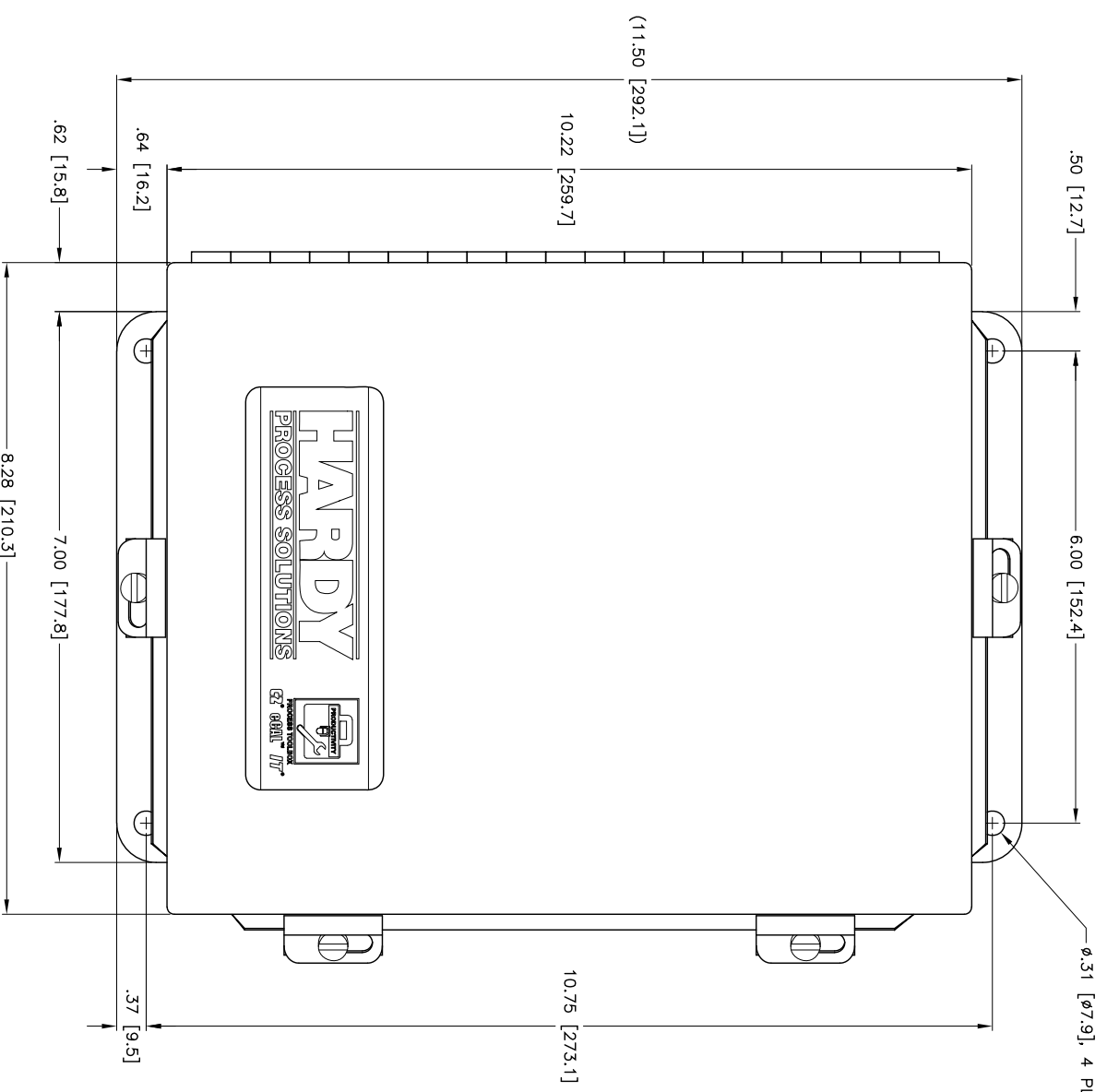
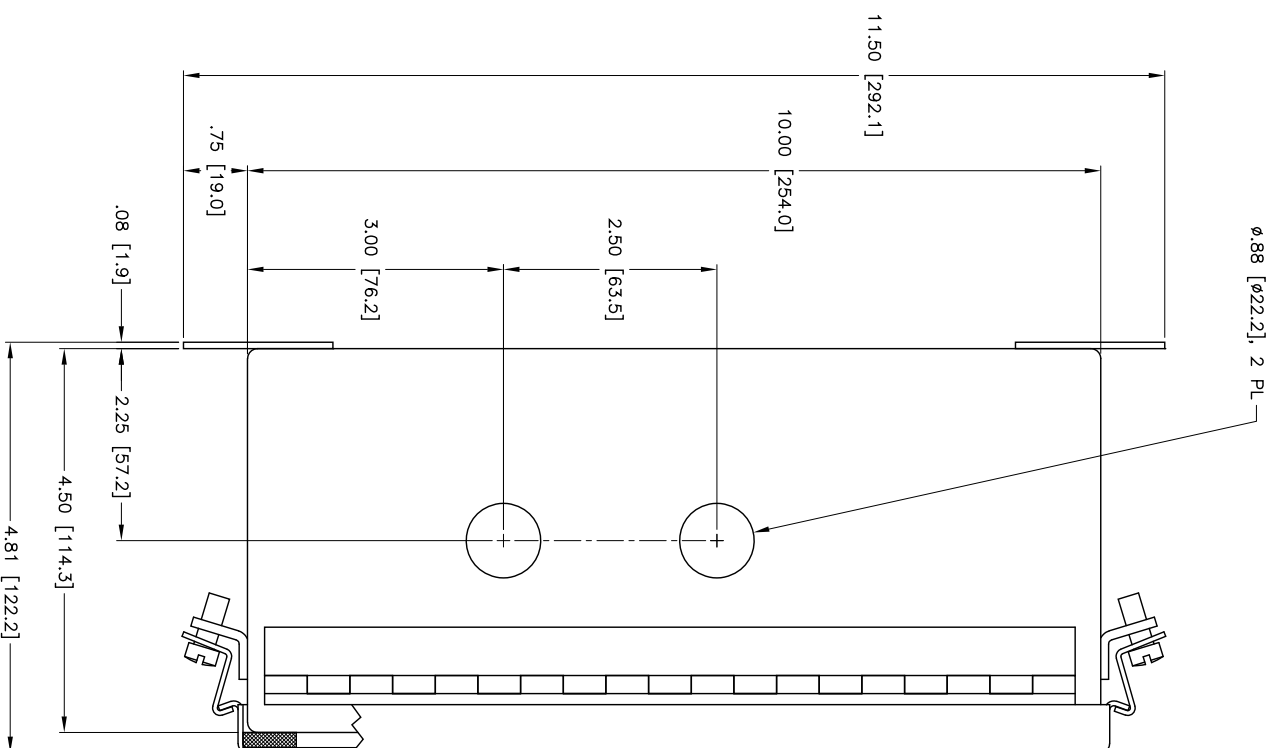
DIMENSIONS = IN [MM]



FRONT PANEL DISPLAY
MOUNTING DIMENSIONS
[VIEWED FROM FRONT
OF INSTRUMENT]

TITLE		HAROLD PROCESS SOLUTIONS	
I/1 DIAGRAM, HI 4050 WEIGHT CONTROLLER			
SIZE	ESCHM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E3.DWG		SCALE: NONE	SHEET 2 OF 10

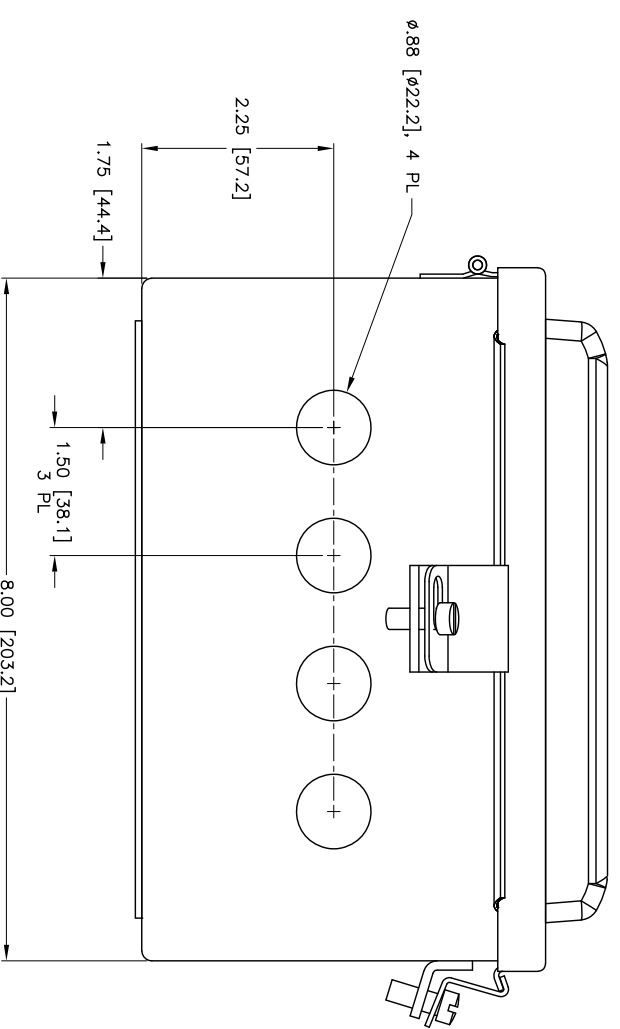
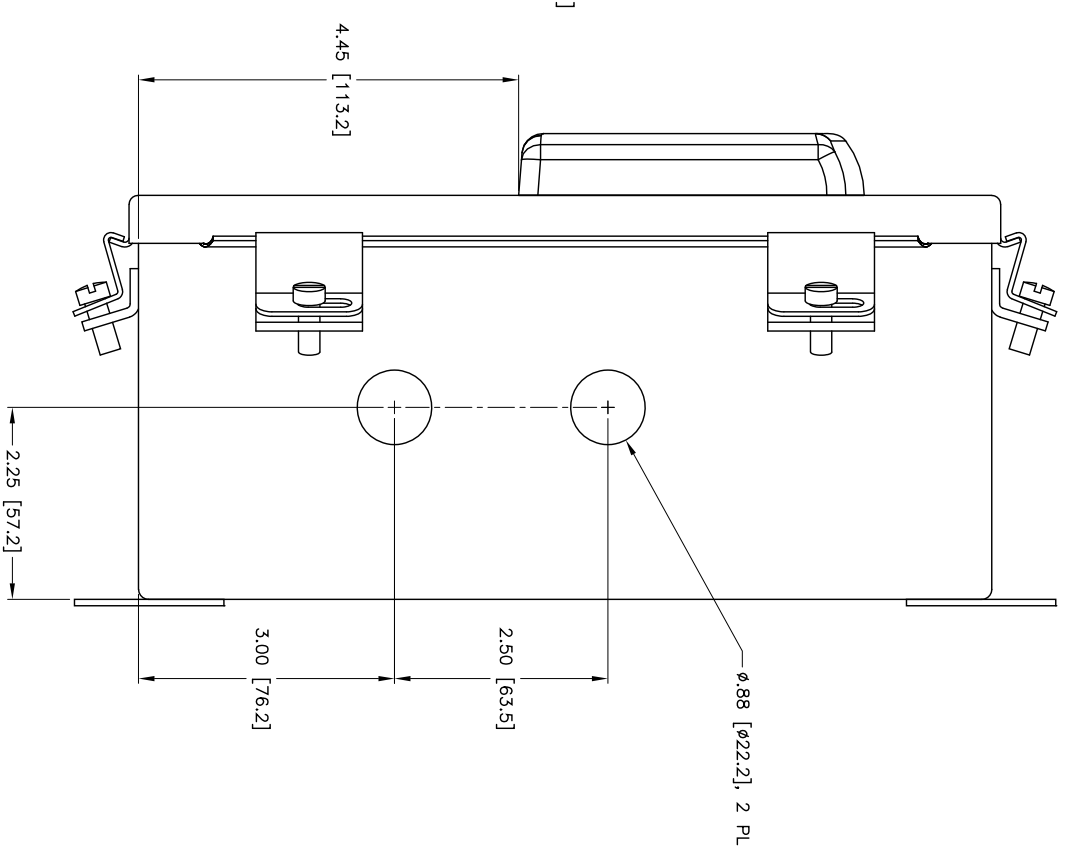
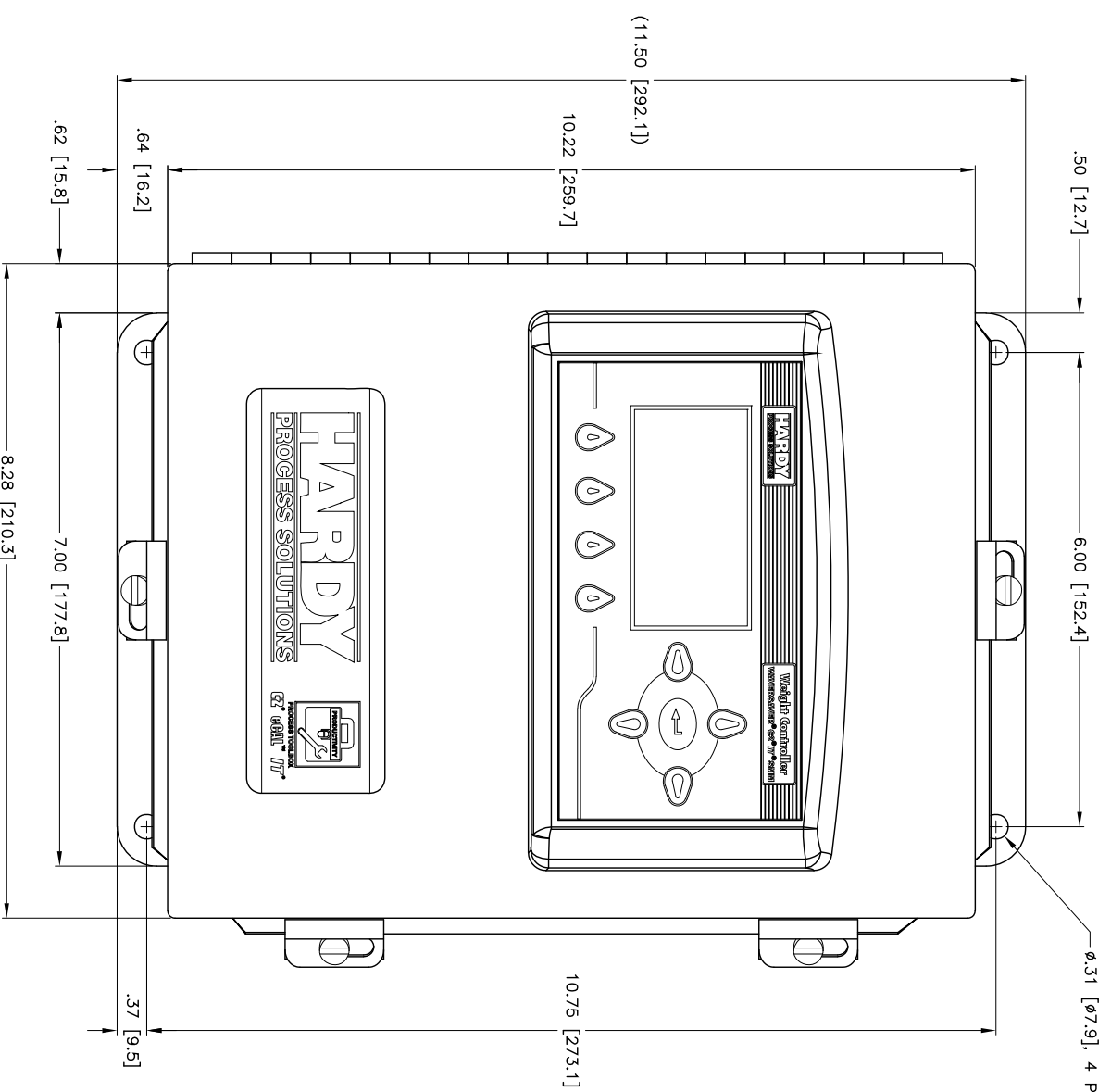
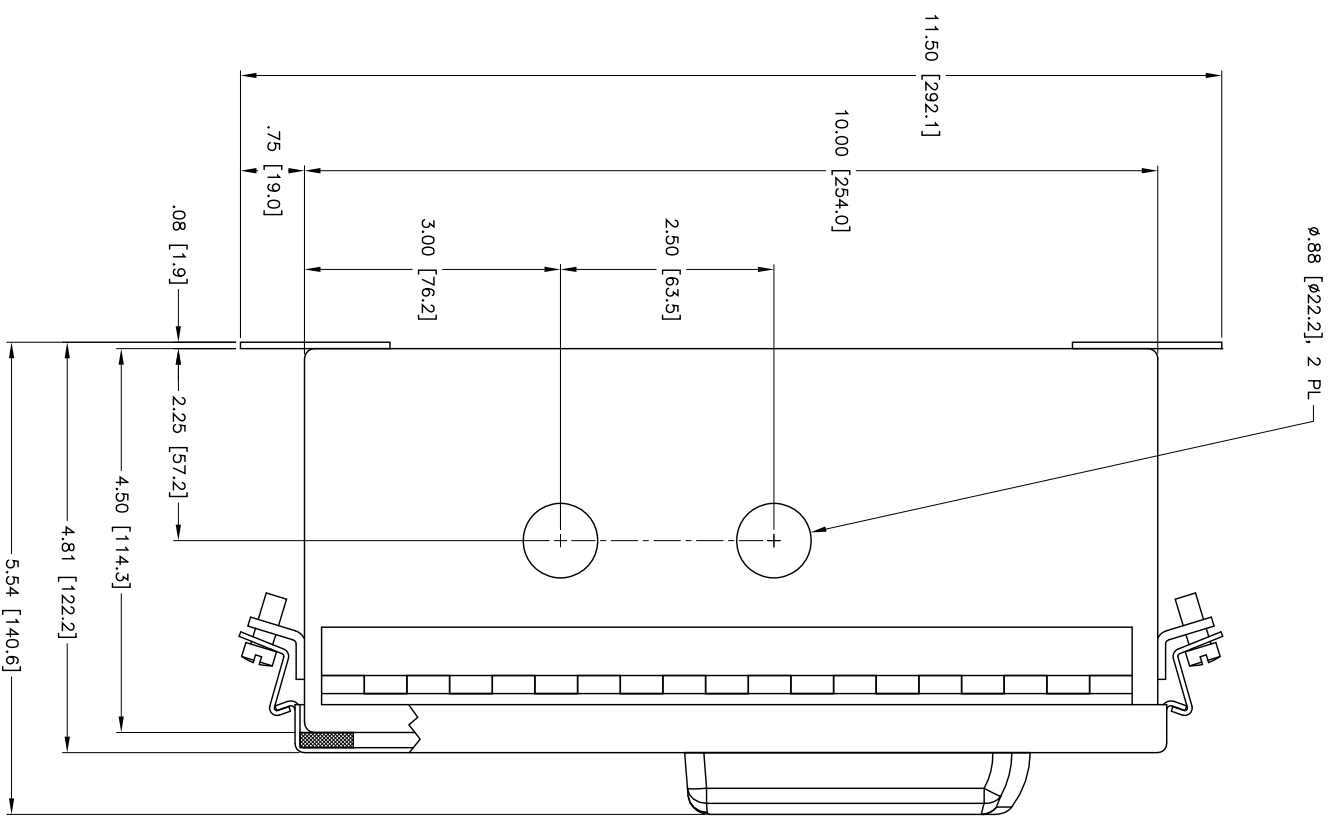
NEMA 4/4X WALL MOUNT HI 4050 WEIGHT CONTROLLER – WITHOUT DISPLAY



DIMENSIONS = IN [MM]

		TITLE I/I DIAGRAM, HI 4050 WEIGHT CONTROLLER	
SIZE	ESCH	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E3.DWG		SCALE: NONE	SHEET 3 OF 10

NEMA 4/4X WALL MOUNT HI 4050 WEIGHT CONTROLLER – WITH DISPLAY



DIMENSIONS = IN [MM]

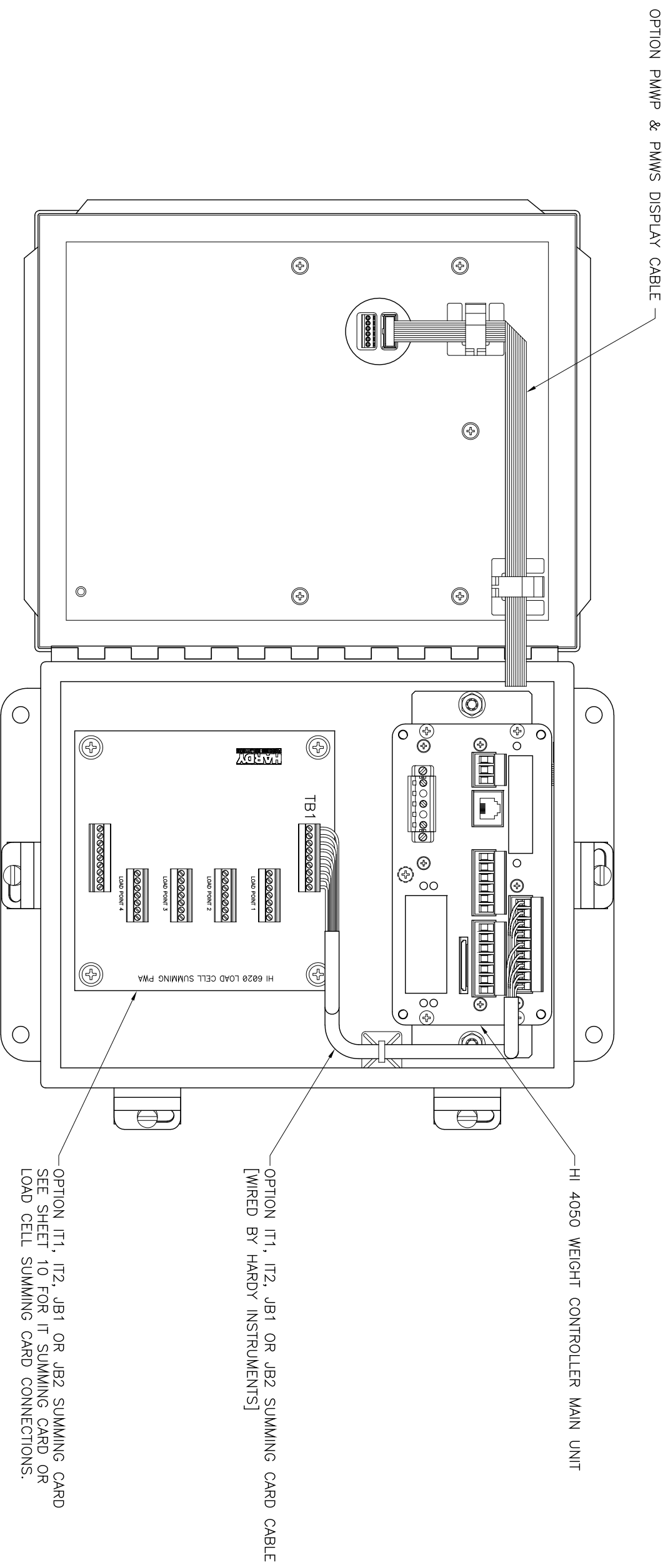


I/1 DIAGRAM,

HI 4050 WEIGHT CONTROLLER

TITLE	HI 4050 WEIGHT CONTROLLER		
SIZE	ESCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME:	584064E3.DWG	SCALE:	NONE
SHEET	4	OF	10

NEMA 4/4X WALL MOUNT HI 4050 WEIGHT CONTROLLER – INTERNAL COMPONENTS



DIMENSIONS = IN [MM]

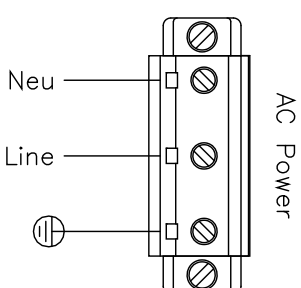
HARDY PROCESS SOLUTIONS		TITLE	
I/1 DIAGRAM, HI 4050 WEIGHT CONTROLLER		FILE NAME: 584064E3.DWG	
SIZE	ESCH	DRAWING NO.	REV.
D	21316	0584-0064	E
SCALE: NONE		SHEET 5 OF 10	

POWER INPUT TERMINATIONS

OPTION CODE AC

NOTES:

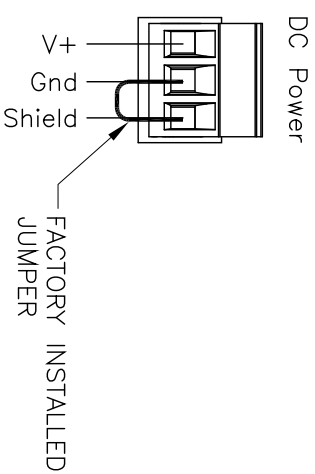
1. INPUT VOLTAGE: 120/240 VAC, 50/60 Hz, 0.5 AMP, 10 WATT.
2. OPTION AC OPERATING TEMPERATURE: -10°C TO +40°C.
3. WIRE SIZE: 14 AWG MAXIMUM / 18 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



OPTION CODE DC

NOTES:

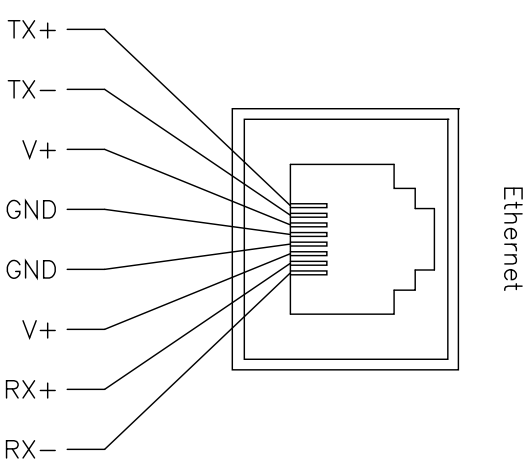
1. INPUT VOLTAGE: 24 VDC, 0.42 AMP, 10 WATT.
2. OPTION DC OPERATING TEMPERATURE: -10°C TO +60°C.
3. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



ETHERNET TERMINATION

NOTES:

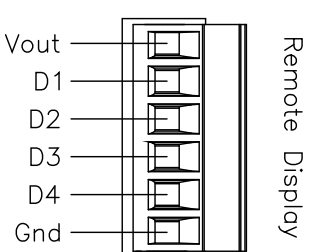
1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ETHERNET TERMINATIONS.
2. CONNECTOR TYPE: RJ-45, 8 PIN
3. N.C. = NOT CONNECTED.



REMOTE DISPLAY TERMINATIONS

NOTES:

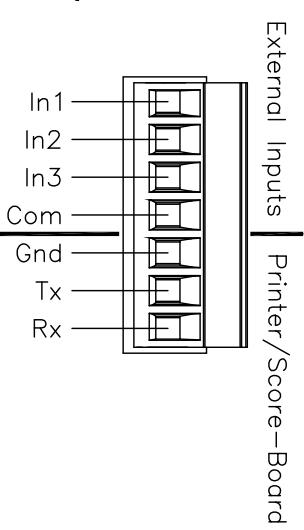
1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON REMOTE DISPLAY TERMINATIONS.
2. WIRE SIZE: 20 AWG MAXIMUM / 26 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.
3. SEE SHEET 2 FOR FRONT PANEL DISPLAY WIRE TERMINATIONS.
4. MAXIMUM CABLE LENGTH: 100 FEET [30.48 METERS]



EXTERNAL INPUT & PRINTER/SCOREBOARD TERMINATIONS

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON EXTERNAL INPUT AND PRINTER/SCOREBOARD TERMINATIONS.
2. EXTERNAL INPUTS ARE NON-ISOLATED, ACTIVE LOW AND REFERENCED TO COMMON [COM].
3. DO NOT BUNDLE ANALOG INPUT WIRING WITH POWER WIRING, RELAY CABLE OR ANY OTHER HIGH ENERGY CABLES.
4. EXTERNAL INPUTS CAN BE CONFIGURED IN THE MAPPING SECTION OF THE INSTRUMENT'S WEB PAGE.
FACTORY DEFAULT EXTERNAL INPUT MAPPINGS: NONE
5. PRINTER/SCORE-BOARD TRANSMIT DATA [Tx] AND RECEIVE DATA [Rx] USE RS-232 SERIAL INTERFACE COMMUNICATION PROTOCOL.
6. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



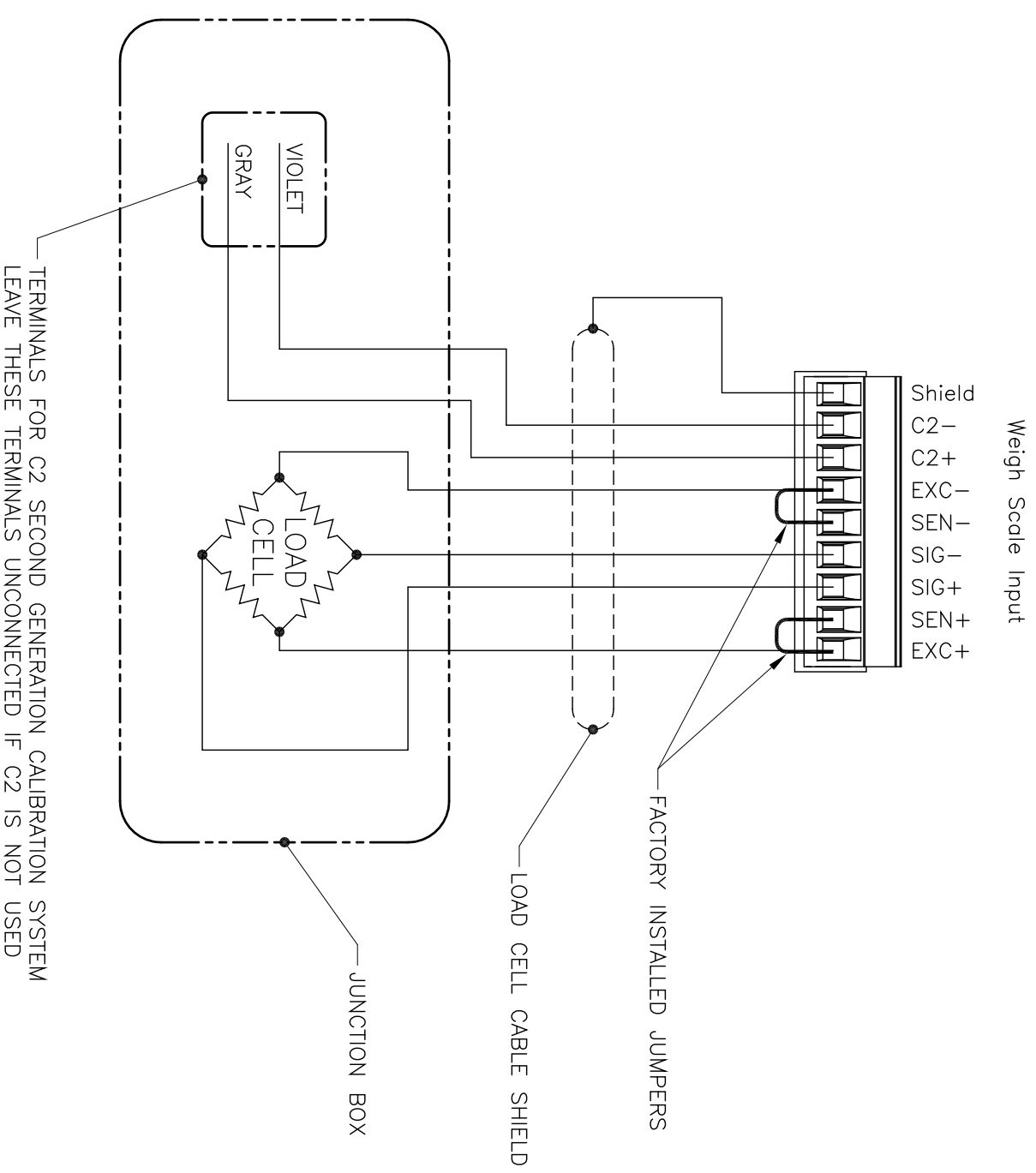
TITLE
I/I DIAGRAM,
HI 4050 WEIGHT CONTROLLER

SIZE	ESCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME:	584064E3.DWG	SCALE:	NONE
SHEET	6	OF	10

WEIGH SCALE INPUT TERMINATIONS

NOTES:

1. DO NOT RUN LOAD CELL CABLE PARALLEL TO, OR IN THE SAME CONDUIT WITH POWER WIRING, RELAY CABLE OR OTHER HIGH ENERGY CABLES.
2. FACTORY INSTALLED JUMPERS TO REMAIN IN PLACE FOR FOUR WIRE LOAD CELL CONNECTION. JUMPERS TO BE REMOVED FOR SIX WIRE OR EIGHT WIRE [C2] LOAD CELL CONNECTIONS. EXCITATION AND SENSE WIRES TO BE CONNECTED TOGETHER IN JUNCTION BOX.
3. REQUIRED LOAD CELL CABLE FOR C2 SECOND GENERATION CALIBRATION SYSTEM: HARDY INSTRUMENTS PART NUMBER 6020-0001-0.
4. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ANALOG WEIGH SCALE INPUT CONNECTIONS.
5. C2 WIRE PAIR MUST BE CONNECTED WHEN USING THE HARDY INTEGRATED TECHNICIAN SUMMING CARDS.
6. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.

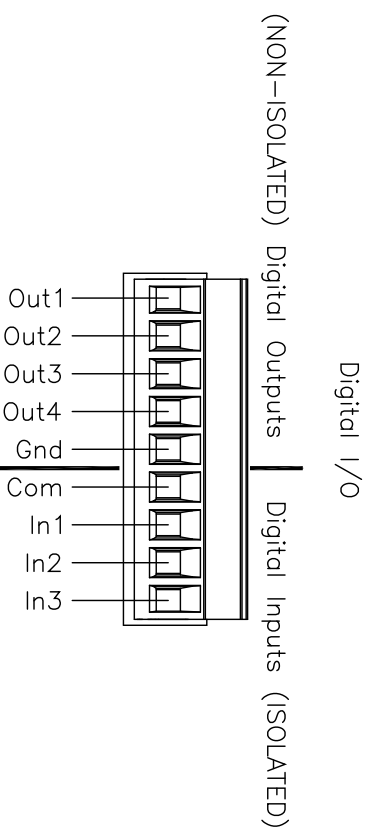


HARDY PROCESS SOLUTIONS		TITLE	
HARDY PROCESS SOLUTIONS		I/1 DIAGRAM, HI 4050 WEIGHT CONTROLLER	
SIZE	ESCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E3.DWG		SCALE: NONE	SHEET 7 OF 10

OPTION CODE DIO – DIGITAL I/O

NOTES:

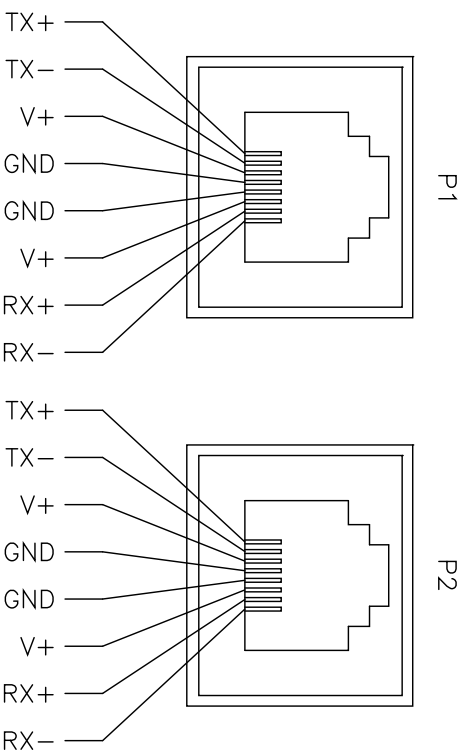
1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON DIGITAL I/O TERMINATIONS.
2. DIGITAL INPUTS & OUTPUTS ARE SOFTWARE CONFIGURABLE. SEE USER'S GUIDE FOR ADDITIONAL SETTING CONFIGURATIONS.
INPUTS: 5–24VDC, 6mA
OUTPUTS: SOURCE: 0–5VDC
SINK: 0–24VDC
3. ~~OPTION 4ANA AND 4ANB IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.~~
OPTION 4ANB IS LOCATED IN THE AUXILIARY OPTION SLOT, WHEN ORDERED.
4. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



OPTION CODE PFN – PROFINET COMMUNICATIONS

NOTES:

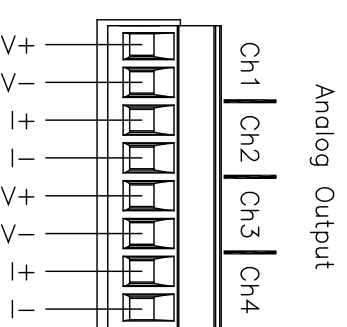
1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON PROFINET TERMINATIONS.
2. CONNECTOR TYPE: RJ-45, 8 PIN, QTY 2.
3. OPTION PFN IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.



OPTION CODES 4ANA & 4ANB – ANALOG OUTPUT TERMINATIONS

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON ANALOG OUTPUT TERMINATIONS.
2. ANALOG OUTPUTS ARE SOFTWARE CONFIGURABLE. SEE USER'S GUIDE FOR ADDITIONAL SETTING CONFIGURATIONS.
FACTORY DEFAULT SETTINGS:
CURRENT [CH2 & CH4]: 4–20mA
VOLTAGE [CH1 & CH3]: 0–10VDC
3. OPTION 4ANA IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
OPTION 4ANB IS LOCATED IN THE AUXILIARY OPTION SLOT, WHEN ORDERED.
4. ONLY ONE ANALOG OUTPUT OPTION CARD CAN RESIDE IN THE HI 4050 INSTRUMENT, WHEN ORDERED.
5. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.

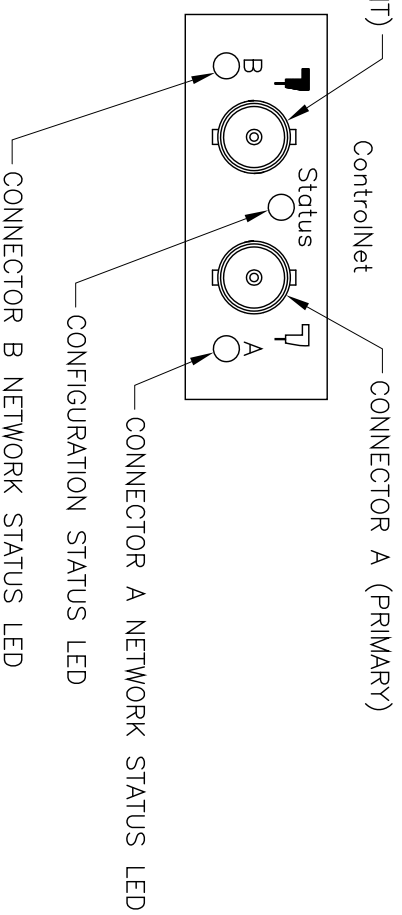


		TITLE	
		I/O DIAGRAM, HI 4050 WEIGHT CONTROLLER	
SIZE	ESCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E3.DWG		SCALE: NONE	SHEET 8 OF 10

OPTION CODE CN – CONTROLNET I/O INTERFACE

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON CONTROLNET I/O INTERFACE TERMINATIONS.
2. OPTION CN IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
3. THIS OPTION REQUIRES STANDARD BNC TYPE INTERFACE CONNECTORS. WHEN ORDERED WITH HI 4050-DRWS OR HI 4050-PMWS, RIGHT ANGLE BNC INTERFACE CONNECTORS MUST BE USED.
4. IF REDUNDANCY IS WANTED, BOTH CONNECTORS SHOULD BE USED.

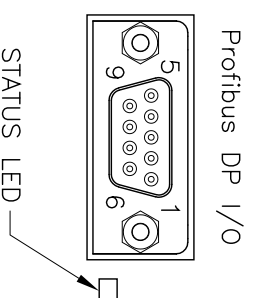


OPTION CODE PB – PROFIBUS DP I/O

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON PROFIBUS DP I/O INTERFACE TERMINATIONS.
2. OPTION PB IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
3. INTERFACE CONNECTOR TYPE ON THE INSTRUMENT:
9 PIN D-SUBMINIATURE [DE-9], FEMALE CONTACTS.

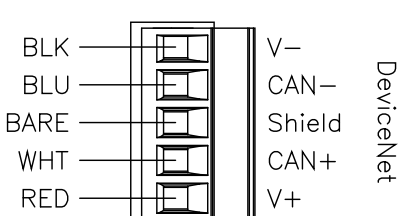
CONNECTOR TERMINATIONS	
PIN	SIGNAL
1	NO CONNECT
2	NO CONNECT
3	RXD/TXD +
4	RTS
5	GND BUS
6	+5V BUS
7	NO CONNECT
8	RXD/TXD -
9	NO CONNECT



OPTION CODE DN – DEVICENET COMMUNICATIONS

NOTES:

1. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON DEVICENET TERMINATIONS.
2. OPTION DN IS LOCATED IN THE NETWORK OPTION SLOT, WHEN ORDERED.
3. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.



HARBOY PROCESS SOLUTIONS	
I/O DIAGRAM, HI 4050 WEIGHT CONTROLLER	
TITLE	
SIZE	ESCM
D	21316
FILE NAME:	584064E3.DWG
DRAWING NO.	0584-0064
SCALE:	NONE
REV.	E
SHEET	9 OF 10

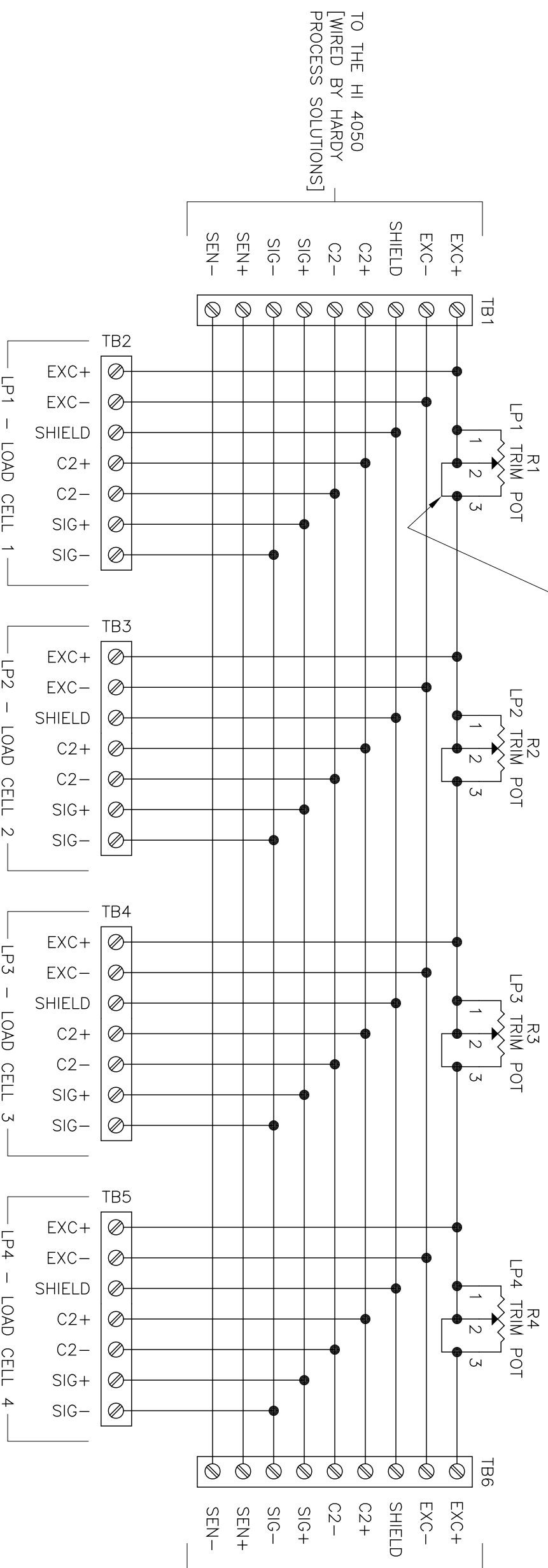
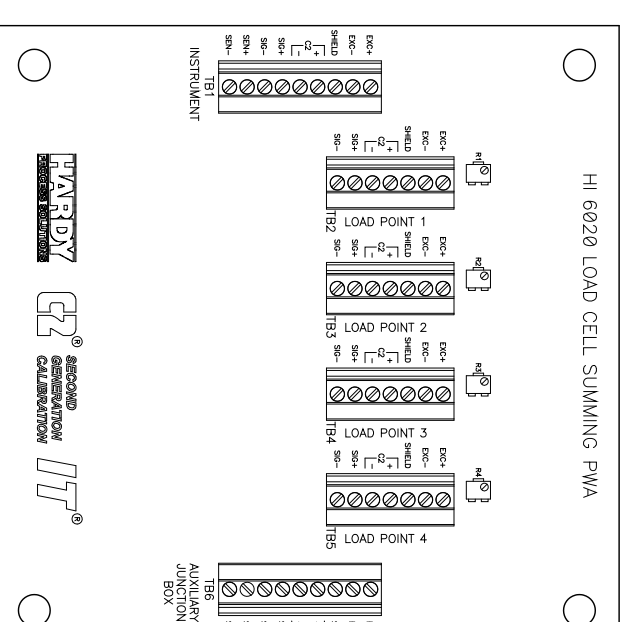
OPTION CODES IT1 & IT2 – IT SUMMING CARD
 OPTION CODES JB1 & JB2 – LOAD CELL SUMMING CARD

IT SUMMING/LOAD CELL SUMMING CARD

NOTES:

1. DO NOT RUN LOAD CELL CABLES PARALLEL TO, OR IN THE SAME CONDUIT WITH POWER WIRING, RELAY CABLE OR OTHER HIGH ENERGY CABLES.
2. REQUIRED LOAD CELL CABLE FOR C2 SECOND GENERATION CALIBRATION SYSTEM: HARDY PROCESS SOLUTIONS PART NUMBER 6020-0001-0.
3. SEE USER'S GUIDE FOR ADDITIONAL INFORMATION ON IT SUMMING/LOAD CELL SUMMING CARD CONNECTIONS.
4. WIRE SIZE: 12 AWG MAXIMUM / 22 AWG MINIMUM.
 WIRE TIGHTENING TORQUE: 2 LB-IN MINIMUM / 4 LB-IN MAXIMUM.

ZERO OHM JUMPER REMOVED WHEN SUMMING CARD IS EQUIPPED WITH TRIM POTS, 4 PLACES APPLIES TO OPTION CODES IT2 & JB2 ONLY
 NOTE: THE USE OF TRIM POTS WILL INVALIDATE C2 CALIBRATION DATA WHEN USED WITH C2 LOAD CELLS



TO THE HI 4050
 [WIRED BY HARDY
 PROCESS SOLUTIONS]

TO AUXILIARY JUNCTION BOX
 FOR 5 OR MORE LOAD CELLS,
 OR TO A 5TH LOAD CELL

IT SUMMING/LOAD CELL SUMMING CARD WIRING DIAGRAM

TITLE		I/1 DIAGRAM,	
HI 4050 WEIGHT CONTROLLER		PROCESS SOLUTIONS	
SIZE	ESCM	DRAWING NO.	REV.
D	21316	0584-0064	E
FILE NAME: 584064E3.DWG		SCALE: NONE	SHEET 10 OF 10